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Social determinants of mental health service utilization in Switzerland

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ABSTRACT

Objectives: To investigate whether mental health services utilization in Switzerland is equitably distributed (i.e., predicted only by the need of a person).

Methods: Data on 17789 participants of the Swiss Health Survey 2012 (≥15 years) was analysed. Logistic regression analyses were conducted to predict: having been in treatment for a psychological problem; having used psychotropic medication; having had medical treatment for depression; and having visited a psychologist or psychotherapist. Need (depression severity and risky alcohol consumption) and socio-demographic variables were used as independent variables.

Results: Depression severity was the strongest predictor for using mental health services. In contrast, risky alcohol consumption was not associated with an increased likelihood of using mental health services. After adjusting for need, the following groups were less likely to use (some of) the mental health services: males, young people, participants who (almost) work full-time, single/umarried, non-Swiss people and those living in rural areas. Education and income were not significantly associated with the outcomes in the adjusted analyses.

Conclusions: Some socio-demographic subgroups are less likely to use mental health services despite having the same need.

Key words: Behavioural Model of Health Services Use; depression; alcohol; mental health services

INTRODUCTION

Only a small proportion of those with (severe) mental health problems (including substance use disorders) are treated professionally (Kohn et al. 2004; Wang et al. 2007), even though effective treatments exist. The *Behavioural Model of Health Services Use* (Andersen 1995) is a valuable framework, in which *predisposing*, *enabling* and *need factors* are specified as predictors of health care utilization. *Predisposing factors* exist prior to the onset of a (mental) health problem, mostly have a low degree of mutability and include demographic characteristics (e.g., gender), social structure factors (e.g., education) and health beliefs (e.g., attitudes towards help-seeking). *Enabling factors* facilitate or hamper help-seeking and include personal (e.g., health insurance coverage, income) and communal (e.g., availability of service) characteristics. *Need factors* describe the self-perceived or professionally-assessed health status of a person.

Some authors (Goodwin and Andersen 2002; Parslow and Jorm 2000) have suggested that only need factors should predict utilization of mental health services in an equitable system. Need factors, such as having a diagnosed mental disorder or suffering from more severe mental health problems, have indeed been identified as the most important predictors of utilization in different countries (e.g., Burns et al. 2003; Leaf et al. 1988; Parslow and Jorm 2000; Schomerus et al. 2012). However, predisposing and enabling factors – such as female gender (Angst et al. 2005; Bijl et al. 2003; Bovier et al. 2001; Burgess et al. 2009; Fleury et al. 2014; Wang et al. 2007), higher educational level (Bijl and Ravelli 2000; Kovess-Masfety et al. 2007; Parslow and Jorm 2000; Schomerus et al. 2012; Wang et al. 2007), more positive attitudes towards help-seeking (ten Have et al. 2010) and having health insurance (e.g., Garfield et al. 2011) – have repeatedly been shown to increase the likelihood of using mental health services even after adjusting for need.

Countries differ in some of the above-mentioned and other variables that might affect utilization of mental health care. In a European study, it was found, for instance, that the utilization rates were lowest in those countries with the lowest availability of professionals (Kovess-Masfety et al. 2007). However, countries with the highest density of professionals were not necessarily those with the highest utilization rates, possibly because other factors (e.g., the nature of professional support available, referral practices, levels of health care insurance, out-of-pocket expenditures) affected utilization behaviour as well. Another study indicated that financial barriers might be more often experienced by people with a low income in countries that have more restrictions on accessibility to health care (in the USA

relative to Canada and the Netherlands; Saaren et al. 2007). Lastly, countries might not only differ in structural characteristics described above, but also in their attitudes towards help-seeking (ten Have et al. 2010).

So far, only a few scientific publications have described the use of mental health services in Switzerland. In this country, it is mandatory to have basic health insurance, whereby financial restrictions to care might be reduced. Furthermore, the density of psychiatrists and psychotherapists is, compared to other countries, relatively high in Switzerland (Ajdacic-Gross and Graf 2010; OECD 2014). The few existing scientific publications that considered a representative Swiss sample only collected data from one canton and from a single age cohort (Angst et al. 2005; Burns et al. 2003).Therefore, the present study aimed to investigate whether mental health service utilization is equitably distributed (i.e., predicted solely by the need of a person) in a representative Swiss sample of the entire country, or is also influenced by predisposing or enabling factors.

METHODS

Procedure

Data from the *Swiss Health Survey 2012 (SHS)*, conducted by the Swiss Federal Statistical Office (SFSO 2013), was analysed. This survey used a stratified random sample of the permanent Swiss population (including Non-Swiss citizens) aged 15 and older living in private households. People living in hospitals, nursing homes or other collective households, as well as those seeking asylum, were excluded. The first phase of the survey generally consisted of computer-assisted telephone interviews (CATI), which were conducted in German, French or Italian. In some cases, a computer-aided personal interview (CAPI) was conducted (e.g., when a person could not be interviewed via CATI). Altogether, 20830 people participated in the CATI and 48 in the CAPI. In the second phase, a total of 18357 people additionally filled out a written questionnaire (response rate = 87.9%).

Need factors

The following psychological problems were used as indicators for a person's need:

- *Depression symptom severity*: The nine-item Patient Health Questionnaire (PHQ-9; Kroenke and Spitzer 2002; Kroenke et al. 2001) was used. It asks about the frequency of symptoms of depression during the previous two weeks. Every item is rated on a 4-point scale, ranging from *never* (coded as 0) to *nearly every day* (coded as 3).

The sum-score of these nine items was stratified into the following severity categories (Kroenke et al. 2001): *no depression* (sum-scores 0-4), *mild* (sum-scores 5-9), *moderate* (sum-scores 10-14), *moderately severe* (sum-scores 15-19) and *severe* (sum-scores 20-27).

- *Risky alcohol consumption:* Two indicators of risky alcohol consumption were used. *Risky chronic alcohol consumption* was based on grams of pure alcohol consumed per day. According to the long-term alcohol-related harm associated with particular consumption patterns, people were categorized into those with *no / low risk* (including people who do not drink alcohol), *medium risk* and *high risk*. The cut-offs used, which differed for men and women, were adapted from the criteria proposed by the WHO (2000). The second indicator was based on the question about the frequency of risky single-occasion drinking during the last 12 months (RSOD; defined as drinking 6 or more glasses of alcohol on a single occasion), which originated from the European Health Interview Survey. The answers were dichotomized into *at-risk RSOD* (defined as having RSOD at least once a month) vs. *not at-risk RSOD* (including those who do not drink alcohol).

Predisposing factors

- *Language region*: German-, French- and Italian-speaking;
- *Gender*;
- *Age categories*: 15-24, 25-34, 35-44, 45-54, 55-64, 65-74 and 75+;
- *Education*: mandatory, secondary and tertiary. About 4/5 of the 'mandatory' category were people who had completed mandatory school. The remaining people belonging to this category had not (yet) completed mandatory school (including the youngest particpants who were still in school);
- *In education*: in education (e.g., students or people who attend further vocational training) and not in education;
- *Occupation:* working 90-100%, 70-89%, 50-69%, less than 50% and not working;
- *Martial status:* single / unmarried (including people who were de-facto), married (including registered partnership), separated / divorced (including annulled registered partnership) and widowed;
- *Nationality:* Swiss (including people with dual citizenship, including Swiss) and non-Swiss.

Enabling factors

- *Income:* The net equivalent income of the household was converted into an index, which corresponds to the income of a one-person household. Quartiles of this income were used: 1. quartile (< 2521 CHF), 2. quartile (2521-3599 CHF), 3. quartile (3600-5199 CHF) and 4. quartile (≥ 5200 CHF) (for details: SFSO, 2013);
- *Residence:* rural and urban regions.

Use of mental health services

- *Treatment for a psychological problem*: Participants were asked if they were treated for a psychological problem during the last 12 months. The answer format was *no* (coded as 0) vs. *yes* (coded as 1);
- *Psychotropic medication*: The indicator 'using psychotropic medication' was based on questions about the consumption of sleeping pills, tranquillizers and antidepressants in the previous seven days. This variable consisted of two categories: not having used psychotropic medication (coded as 0) vs. having used psychotropic medication (coded as 1);
- *Medical treatment for depression:* Participants were asked whether they currently are or previously were in medical treatment because of suffering from depression. Four answer categories were provided, namely 1) yes, currently in treatment; 2) yes, in treatment within the last 12 months; 3) yes, in treatment previous to the last 12 months; and 4) no. The answers were dichotomized into no treatment within the last 12 months (coded as 0; former answer categories 3 and 4) vs. treatment within the last 12 months (coded as 1; former answer categories 1 and 2).
- *Visiting a psychologist / psychotherapist*: Respondents were also asked about the frequency of visiting a psychologist / psychotherapist during the last 12 months. The answers were coded into never (coded as 0) vs. at least once (coded as 1).

Statistical Analysis

Weighted data was used (for details about the weights: SFSO 2013) and all analyses were carried out with Stata (2013). Logistic regression analyses were conducted to identify predictors (to be understood as independent variables in the statistical model, not as causal determinants of the outcomes) associated with the four outcomes regarding the utilization of mental health services (see above). All of the above-mentioned *need* (depression severity, risky alcohol

consumption), *predisposing* (e.g., gender) and *enabling factors* (e.g., income) were used as predictors. Adjusted odds ratios (AOR; all predictors are simultaneously included in the model) were calculated.

Because one of the main predictors (depression severity) was only available for people who had filled out the written questionnaire (n=18357), analyses were limited to this subgroup. In order not to lose too many participants for the analyses, a residual category with missing data was built for the predictors depression severity, risky alcohol consumption (chronic and RSOD), education, income and occupation. People with missing data in any of the four outcome measures, as well as the few people with missing data in marital status, were excluded (568 people). Hence, the analytical sample consisted of 17789 people. The Result section mainly focuses on significant findings.

RESULTS

Need, predisposing and enabling characteristics are presented in Online Resource 1.

In the total sample, 5.1% of the participants indicated that they had been treated for a psychological problem during the last 12 months, 8.8% had used psychotropic medication in the previous 7 days, 4.1% had been in medical treatment for depression within the last 12 months and 6.1% indicated that they had visited a psychologist / psychotherapist at least once during the last 12 months.

Need factors

The AORs increased with increasing severity of depression for the outcomes 1) treatment for a psychological problem; 2) medical treatment for depression; and 3) visiting a psychologist / psychotherapist (Table 1). This increasing utilization seemed to level off between moderately severe and severe depression. For instance, the AORs for visiting a psychologist or psychotherapist show a pronounced increase from ‘no depression’ (reference) to ‘mild’ (3.21), ‘moderate’ (8.22), and finally ‘moderately severe’ depression (16.45). By contrast, the differences between the AORs are smaller between those with ‘moderately severe’ vs. ‘severe’ depression (16.45 vs. 18.14). This levelling off might have been even more pronounced regarding the outcome ‘using psychotropic medication’, where the AORs were higher for those with moderately severe (20.93) vs. those with severe depression (18.54). At-risk RSOD was associated with a lower likelihood of having been in medical treatment for depression.

Predisposing factors

Regarding language region, Italian-speaking participants were, relative to German-speaking ones, less likely to report that they have been in treatment for a psychological problem. French-speaking people were more likely to indicate that they had used psychotropic medication relative to people from the German-speaking part. Females were more likely than males to report having used psychotropic medication and having visited a psychologist / psychotherapist. Relative to the youngest age group (15-24 years), utilization of all four assessed mental health services was higher for the age groups 25-34, 35-44, 45-54 and 55-64, as indicated by significant AORs. For the outcomes 'treatment for a psychological problem', 'medical treatment for depression' and 'visiting a psychologist / psychotherapist', 65-74 or 75+ year olds either did not differ from the youngest age group or showed lower utilization. The AORs only increased more or less continuously with age in regard of using psychotropic drugs. People with tertiary education were, relative to those with mandatory education, more likely to have been in treatment for a psychological problem during the last 12 months. Participants who were working 90-100% (reference category) were less likely than all other groups to use any of the mental health services assessed here (only a trend was found for those who were working 50-69% in regard to being in medical treatment for depression). Married people were, relative to single/unmarried participants, less likely to having been in treatment for a psychological problem or to have visited a psychologist / psychotherapist. Non-Swiss participants were, relative to Swiss people, less likely to have been in treatment for a psychological problem.

Enabling factors

Income was only significantly associated with some of the service use outcomes in the unadjusted (results not shown), but not in the adjusted analyses. People from urban areas were more likely to have had treatment for a psychological problem.

DISCUSSION

In this large population-based sample from Switzerland, depression severity was the most important predictor of mental health care utilization, whereas risky alcohol consumption did not increase the use of such services. Some predisposing and enabling factors also significantly contributed to the prediction of mental health care utilization.

Need factors

Earlier studies have shown that need factors are often the most important predictors for using mental health services (Burns et al. 2003; Leaf et al. 1988; Parslow and Jorm 2000; Schomerus et al. 2013). Accordingly, the present study revealed that depression severity was the most important predictor for all four outcomes. However, utilization did not increase linearly, but levelled off or even decreased among those with the most severe levels of depression. That people most in need do not seek help is a problem because it might lead to more severe illness trajectories, including suicide (Mann et al. 2005). Professional help-seeking might be improved by improving attitudes towards mental health professionals (ten Have et al. 2010).

In the present study, risky alcohol consumption was not associated with an increased utilization of mental health services. Other researchers also found lower utilization rates among those with substance use relative to those with mood problems (Angst et al. 2005; Bijl and Ravelli 2000; Burgess et al. 2009; Kohn et al. 2004; Kovess-Masfety et al. 2007; Reavley et al. 2010; Rhodes et al. 2002), possibly because the former less often perceived a need for treatment (Mojtabai et al. 2002) and more often believed that treatment would be of limited value (Rhodes et al. 2002; ten Have et al. 2010). Furthermore, stigma and shame have also been identified as a major reason for not seeking treatment among those with problematic alcohol use (Probst et al. 2015). Lastly, it is possible that risky alcohol consumption is tolerated to a large extent in the Swiss and other Western societies and that only a prolonged problematic consumption leads to negative reactions of the social environment and a realization that professional help is needed (Bijl and Ravelli 2000).

Risky alcohol consumption, in particular at-risk RSOD, was especially prevalent among 15- to 24-year olds in the present study (results not shown). Young people with risky alcohol consumption have been shown to prefer informal (e.g., from friends) rather than formal help (e.g., from medical professional) (Buscemi et al. 2010). Such a preference might, if it was particularly pronounced among the youngest age group, have contributed to the finding that 15-24-

year olds had relatively low utilization rates. Furthermore, young at-risk RSOD might not have sought professional help because they were lacking knowledge and awareness of the potential risk of RSOD (Kuntsche et al. 2004). However, a study from Switzerland suggests that solely providing information about the risk associated with problem substance use might not suffice to induce a behavioural change in young people (Dermota et al. 2013). Hence, additional means (e.g., brief computer-administered and personalized drinking feedback; Buscemi et al. 2010) should be considered to reduce risky alcohol consumption in this age group.

Predisposing factors

Some predisposing factors were, even after controlling for need, associated with using mental health services. Confirming previous research (Angst et al. 2005; Bijl et al. 2003; Bovier et al. 2001; Burgess et al. 2009; Fleury et al. 2014; Wang et al. 2007), the present study has also shown that females were more likely to use some of the mental health services assessed here. More women than men reported having visited a psychologist or psychotherapist and having used psychotropic medication. That fewer men were using mental health services might, among other things, have been due to their lower perceived need for professional help when suffering from a mental health problem (Mojtabai et al. 2002), their preference to self-manage their mental health problem (Johnson et al. 2012; Slaunwhite 2015), their lacking knowledge about where to get help (Slaunwhite 2015), and more negative attitudes towards professional help-seeking (ten Have et al. 2010). If these reasons were relevant for Swiss men as well, professional help-seeking among men might be improved by conveying the message that help-seeking is a *"responsible and independent action"*, hence an action which conforms to masculine ideals (Johnson et al. 2012). Furthermore, improving men's *mental health literacy* (Jorm et al. 1997) (e.g., regarding the usefulness of professional help) might improve their help-seeking behaviour.

Young participants (15-24 years) also showed relatively low utilization rates in the present study. Likewise, an Australian study found that service use was lower among young (16-24 years old) relative to older individuals with a mental health problem (Reavley et al. 2010). This was due to relatively high rates of substance use problems (particularly harmful use of alcohol) and the low rates of help-seeking associated with this these problems in young people. Similarly, the present study showed that at-risk RSOD was particularly prevalent among the youngest age group (see above). In-line with previous research (Kovess-Masfety et al. 2007; Roness et al. 2005; Wang et al. 2007),

the present study additionally showed that the use of some mental health services was also relatively low in people aged 65 and older. Only the use of psychotropic drugs increased with age, which was mainly attributable to increasing utilization rates of sleeping pills (results not shown).

Education was not a significant predictor in the present study, which differs from research in other countries (Bijl and Ravelli 2000; Kovess-Masfety et al. 2007; Parslow and Jorm 2000; Schomerus et al. 2012; Wang et al. 2007). However, the current analyses revealed that people who were working 90-100% were less likely to use mental health services relative to people who were working less (including unemployed participants). Similarly, a US study found that people who were employed were less likely to access primary or speciality care relative to unemployed respondents (Lo and Cheng 2012), and a study from the Netherlands found higher utilization rates among unemployed (vs. employed) people (Bijl and Ravelli 2000). People who (almost) work full-time might have more difficulties in arranging appointments with mental health professionals during working hours (Lo and Cheng 2012). On the other hand, it is also possible that people with more (severe) mental health problems are less likely to work full-time due to associated disability.

Regarding marital status, the present study indicated that married people were, compared to singles/unmarried respondents, less likely to use some mental health services (comparable to Leaf et al. 1988; Wang et al. 2007). Living with a partner might, in some cases, provide enough support for a person with a mental health problem so that he/she does not perceive a need to additionally seek professional help (Burns et al. 2003).

Non-Swiss participants were less likely to have been in treatment for a psychological problem relative to Swiss respondents. Accordingly, it has been reported that more Swiss than non-Swiss students had visited a mental health care provider in the previous year (Bovier et al. 2001). Since the non-Swiss group was very heterogeneous in the present study, it is likely that utilization behaviour also differed between subgroups of non-Swiss people (Lay et al. 2007) and that different reasons applied for not seeking professional help. For instance, some non-Swiss people might not have used mental health services, because they did not know how the healthcare system works and where to get help, whereas others might have experienced language or attitudinal barriers.

Lastly, differences by language regions have been found for “being in treatment for a psychological problem” and “using psychotropic medication”. It should be tested in future studies whether these patterns can also be found on the basis of data other than self-reports.

Enabling factors

In the present study, income was, similar to a study from Germany (Schomerus et al. 2012), not associated with the use of mental health services in the adjusted analyses. However, residence might affect utilization behaviour. Specifically, people from urban regions were more likely to be in treatment for a psychological problem (comparable to Kovess-Masfety et al. 2007; Parslow and Jorm 2000). This finding was possibly due to a higher availability of mental health services (e.g., psychologists) in urban regions. In the *Zurich cohort study*, some people in need who have not been in treatment mentioned "the absence of available local care" as an issue, even though the density of services is relatively high in Switzerland (Burns et al. 2003).

Limitations

Some factors specified in the *Behavioural Model of Health Services Use* (Andersen 1995) were not included in the present study (e.g., health beliefs). Furthermore, need was only represented via indicators of depression severity and risky alcohol consumption. Other frequent mental health problems (e.g., anxiety) as well as perceived need were not included in the present analyses. Regarding the outcome measures, it must be emphasized that only formal help-seeking was considered. Subsequent studies should additionally include informal help-seeking as well as anonymous helping resources (e.g., internet-based resources). It also has to be considered that not all need factors and outcome measurements referred to the same time frame. The PHQ-9, for instance, referred to the previous two weeks, whereas most of the outcome variables referred to the past 12 months. It is also possible that some bias might have occurred during data collection, particularly during the telephone interview. Some people might, for instance, have underreported their alcohol consumption due to social desirability. Lastly, the analyses were based on cross-sectional data which limits causal inferences.

Conclusions

The present study has shown that depression severity was the most important predictor of using mental health services. Nevertheless, not seeking help among those with the highest need (i.e., most severe levels of depression) is a concern that needs to be approached (e.g., by improving attitudes towards mental health professionals; ten Have et al. 2010). Furthermore, that risky alcohol consumption was not positively associated with professional help seeking deserves special attention. We do not suggest that everyone with risky alcohol consumption needs extensive professional treatment. However, less cost-intensive means (e.g., brief computer-administered and personalized drinking feedback; Buscemi et al. 2010) should be considered, particularly for young people who often show risky alcohol consumption.

Even after controlling for need, some predisposing and enabling factors were related to the use of mental health services, indicating inequitable access. It is possible that some subgroups (e.g., male, young and non-Swiss participants) did not use mental health services due to not perceiving a need for treatment, attitudinal barriers or low mental health literacy. For other subgroups (e.g., those who work full-time or those who were living in rural areas), organizational barriers (e.g., difficulties in arranging an appointment with a mental health professional due to job obligations; transportation) might have been more relevant (Lo and Cheng 2012). Lastly, some subgroups (e.g., young or married people) might have received help from other sources (e.g., from peers or spouses) and therefore did not seek professional help. The reasons why some subgroups are less likely to use mental health services in Switzerland should be studied in more detail. Based on this knowledge, tailored interventions might be planned to improve help-seeking behaviour in particular subgroups.

Education and income were not significantly associated with the use of mental health services in the present study. However, subsequent studies should use more fine-graded variables of education and income and also include further socioeconomic variables (e.g., profession) to confirm these findings, since it is possible that the out-of pocket expenses for some high-quality mental health services, especially those that are not (yet) included in the basic health insurance, might be too expensive for some people in need.

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Table 1: Logistic regression models of utilization by need, enabling and predisposing factors of participants in the Swiss Health Survey 2012, Switzerland 2012

	Adjusted odds ratio (95% confidence interval)			
	In treatment for a psychological problem during the last 12 months	Using psychotropic medication in the previous 7 days	In medical treatment for depression within the last 12 months	Visiting a psychologist / psychotherapist during the last 12 months
NEED FACTORS				
Depression severity				
no depression	1.00	1.00	1.00	1.00
mild	3.74 (3.04-4.61)***	3.08 (2.58-3.67)***	4.72 (3.66-6.07)***	3.21 (2.64-3.91)***
moderate	10.29 (7.73-13.68)***	8.85 (6.72-11.65)***	13.70 (10.03-18.71)***	8.22 (6.25-10.81)***
moderately severe	19.59 (13.27-28.90)***	20.93 (13.08-33.47)***	42.80 (27.94-65.55)***	16.45 (11.15-24.27)***
severe	23.90 (13.91-41.07)***	18.54 (10.26-33.53)***	63.15 (37.28-106.95)***	18.14 (10.47-31.44)***
missing	2.43 (1.63-3.63)***	2.93 (2.29-3.75)***	4.10 (2.47-6.80)***	3.11 (1.95-4.97)***
Risky chronic alcohol consumption				
no / low risk	1.00	1.00	1.00	1.00
medium risk	0.68 (0.42-1.11)	1.28 (0.94-1.74)	0.96 (0.53-1.75)	0.75 (0.49-1.16)
high risk	1.22 (0.65-2.29)	1.23 (0.76-2.01)	1.42 (0.68-2.99)	1.16 (0.64-2.09)
missing	-	0.78 (0.13-4.85)	-	-
Risky single-occasion drinking				
not at-risk	1.00	1.00	1.00	1.00
at-risk	0.76 (0.55-1.05)	1.26 (0.97-1.64)	0.54 (0.36-0.80)**	0.77 (0.58-1.02)
missing	1.01 (0.29-3.50)	1.38 (0.32-5.87)	-	0.85 (0.23-3.09)
PREDISPOSING FACTORS				
Language region				
German	1.00	1.00	1.00	1.00
French	0.95 (0.78-1.15)	1.39 (1.19-1.63)***	0.84 (0.67-1.06)	0.96 (0.79-1.16)
Italian	0.59 (0.41-0.85)**	1.05 (0.82-1.35)	0.81 (0.56-1.17)	0.96 (0.70-1.31)
Gender				
males	1.00	1.00	1.00	1.00

females	1.16 (0.94-1.42)	1.46 (1.22-1.74)***	1.16 (0.88-1.53)	1.35 (1.09-1.67)**
Age				
15-24	1.00	1.00	1.00	1.00
25-34	1.70 (1.09-2.66)*	2.11 (1.20-3.70)**	2.15 (1.29-3.59)**	1.60 (1.06-2.42)*
35-44	2.34 (1.49-3.68)***	3.43 (1.93-6.11)***	2.59 (1.52-4.42)***	2.24 (1.48-3.39)***
45-54	2.69 (1.70-4.25)***	5.43 (3.08-9.57)***	2.97 (1.74-5.06)***	2.51 (1.65-3.81)***
55-64	2.08 (1.29-3.38)**	7.76 (4.35-13.83)***	3.61 (1.94-6.71)***	1.76 (1.07-2.89)*
65-74	0.63 (0.37-1.09)	7.11 (3.99-12.65)***	1.0 (0.53-1.88)	0.47 (0.27-0.80)**
75+	0.24 (0.12-0.48)***	9.67 (5.35-17.47)***	0.77 (0.38-1.56)	0.25 (0.12-0.53)***
Education				
mandatory	1.00	1.00	1.00	1.00
secondary	1.14 (0.86-1.52)	0.92 (0.74-1.15)	1.11 (0.79-1.55)	1.04 (0.77-1.41)
tertiary	1.43 (1.03-1.99)*	0.95 (0.73-1.23)	0.90 (0.61-1.34)	1.32 (0.94-1.86)
missing	0.30 (0.03-2.78)	0.55 (0.15-2.02)	-	0.29 (0.35-2.42)
(Still) in education				
no	1.00	1.00	1.00	1.00
yes	0.74 (0.49-1.13)	0.92 (0.56-1.52)	0.69 (0.41-1.16)	0.97 (0.04-1.43)
Occupation				
90-100%:	1.00	1.00	1.00	1.00
70-89%	1.85 (1.30-2.62)***	1.57 (1.10-2.25)*	1.70 (1.11-2.61)*	1.72 (1.24-2.39)***
50-69%	1.65 (1.18-2.31)**	1.72 (1.24-2.38)***	1.57 (1.0-2.47)	1.68 (1.20-2.36)**
<50%	2.07 (1.51-2.85)***	1.87 (1.38-2.54)***	1.87 (1.21-2.88)**	1.78 (1.29-2.46)***
non-working	2.82 (2.16-3.69)***	2.88 (2.18-3.81)***	2.75 (1.85-4.10)***	2.40 (1.77-3.25)***
missing	2.81 (1.26-6.25)*	1.55 (0.68-3.52)	3.34 (1.36-8.23)**	1.34 (0.66-2.73)
Marital status				
single/unmarried	1.00	1.00	1.00	1.00
married	0.57 (0.44-0.73)***	0.95 (1.75-1.21)	0.77 (0.57-1.03)	0.54 (0.43-0.68)***
separated / divorced	1.27 (0.91-1.76)	1.30 (0.96-1.75)	1.27 (0.87-1.85)	1.12 (0.83-1.52)

widowed	0.77 (0.46-1.29)	1.07 (0.77-1.49)	0.62 (0.35-1.11)	0.89 (0.52-1.52)
Nationality				
Swiss	1.00	1.00	1.00	1.00
Non-Swiss	0.67 (0.52-0.86)**	0.95 (0.75-1.21)	0.81 (0.59-1.10)	0.79 (0.62-1.01)
ENABLING FACTORS				
Income				
1. quartile < 2521 CHF	1.00	1.00	1.00	1.00
2. quartile: 2521-3599 CHF	0.78 (0.59-1.02)	1.07 (0.86-1.32)	0.81 (0.60-1.09)	0.87 (0.68-1.12)
3. quartile: 3600-5199 CHF	1.00 (0.77-1.31)	1.22 (0.97-1.53)	1.07 (0.77-1.48)	1.13 (0.85-1.51)
4. quartile: ≥ 5200 CHF	0.85 (0.64-1.13)	1.02 (0.81-1.28)	0.78 (0.57-1.08)	0.99 (0.76-1.30)
missing: %	0.74 (0.47-1.15)	0.90 (0.65-1.25)	0.76 (0.47-1.23)	0.91 (0.61-1.37)
Residence				
rural	1.00	1.00	1.00	1.00
urban	1.23 (1.00-1.52)*	1.06 (0.88-1.26)	1.23 (0.92-1.64)	1.18 (0.94-1.48)

Note: Data is weighted; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$